

CLAIMS:

1. An OLED light source comprising:
a substrate;
a first electrode formed onto said substrate;
one or more organic electroluminescent active layers formed on said first electrode;
a second electrode;
wherein at least one of said first or second electrode is patterned into individually addressed segments;
a driver circuit electrically connected to said segments and further wherein said segments are controlled by said driver circuit such that the chromaticity of the light output from said light source is selectable to create a desired ambient light source.
2. The OLED light source as recited in Claim 1 wherein said substrate comprises transparent glass.
3. The OLED light source as recited in Claim 1 wherein said substrate comprises one of a group, said group comprising a flexible plastic transparent material, a flexible metal foil, a flexible metalized plastic foil, a plastic foil comprising a conducting polymer layer as the conductor and a plastic foil comprising a conducting polymer layer with metal bus bars as the conductor layer.
4. The OLED light source as recite in Claim 2 wherein said first electrode comprises ITO.
5. The OLED light source as recited in Claim 1 wherein said first electrode comprises one of a group of Pedot, Pani and a conducting polymer; and low conductivity metal bus lines connected to said one of a group of Pedot, Pani and a conducting polymer.

6. The OLED light source as recited in Claim 3 wherein said metallic foil comprises metal of a high work function

7. The OLED light source as recited in Claim 1 wherein said first electrode is the anode and said second electrode is the cathode.

8. The OLED light source as recited in Claim 1 wherein said first electrode is the cathode and said second electrode is the anode.

9. The OLED light source as recited in Claim 1 wherein said first electrode is patterned.

10. The OLED light source as recited in Claim 1 wherein said second electrode is patterned.

11. The OLED light source as recited in Claim 1 wherein both said first electrode and said second electrode are patterned.

12. The OLED light source as recited in Claim 1 said one or more organic electroluminescent active layers further comprises a thick hole injection layer of approximately one micron in thickness.

13. The OLED light source as recited in claim 12 wherein said thick hole injection layers comprises a conducting polymer.

14. The OLED light source as recited in Claim 1 wherein said one or more organic electroluminescent active layers comprises one of a group, said group comprising small organic molecules, organo-metallic molecules, conjugated polymers and small molecule dispersions.

15. The OLED light source as recited in Claim 1 wherein said one or more organic electroluminescent active layers is deposited by one of the group, said group

comprising ink jet printing, screen printing, off-set printing, electrostatic printing, gravure printing, flexo-graphic printing, laser-induced and thermally induced transfer printing, and shadow stencil masking.

16. The OLED light source as recited in Claim 1 wherein said driver circuit is electrically connected to said segment by a control line wherein said control line is current limited.

17. The OLED light source as recited in Claim 1 wherein said driver circuit is electrically connected to said segment by a control line wherein said control line further comprises a fuse.

18. In an organic light emitting diode light source, said light source comprising separately addressable active segments, said segments comprising RGB lines, a controller for selectively driving each segment;

a method for controlling the output light from said light source, the steps of said method comprising:

inputting color information to said controller;

driving said segments according to said input color information such that the output light from said light source correlates to said input color information.

19. The method as recited in Claim 18 wherein said step of inputting color information further comprises inputting color information from a user.

20. The method as recited in Claim 18 wherein said step of inputting color information further comprises inputting color information from a light sensor.

21. The method as recited in Claim 18 wherein said step of driving said segments further comprises driving separate R,G,B lines in said light source.

22. The method as recited in Claim 18 wherein said step of driving said segments further comprises driving separate lines in separate regions of said light source.

23. A fault-tolerant OLED light source comprising:

A plurality of independently addressable light segments; each said segments electrically isolated from other said segments such that an electrical short in one of said segments does not short any other light segment; and

A controller driving said plurality of light segments.

24. The fault-tolerant OLED light source as recited in Claim 23 wherein the current flowing to each said segment is limited from said controller such that a short in one segment does not short the entire light source.